#### REMARKS

## Summary of the Office Action

Claim 27 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,742,481 (Murphy '481) in view of U.S. Patent No. 6,504,389 (Hembree).

Claims 28-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Murphy '481 in view of Hembree as applied to Claim 27 and further in view of U.S. Patent No. 5,877,554 (Murphy '554).

Claim 30 is objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form. Applicants appreciate the Examiner's indication that claim 30 contains allowable subject matter.

### Summary of Response to Office Action

Applicants add new Claims 31-41. Accordingly, Claims 27-41 are presently pending.

Reconsideration of the rejection is requested in view of the following comments.

# Claims 27-29 Are Allowable Over the Prior Art

Applicants traverse the rejection of claims 27-29. These claims are directed to a method for manufacturing a semiconductor die package. Independent Claim 27 stands rejected based on the combination of Murphy '481 in view of Hembree. However, these references, whether alone or in combination, fail to teach or suggest the subject matter of Claim 27.

Murphy '481 is directed to a removable terminal support member for an integrated circuit socket/adapter assembly. The Office Action refers to the socket/adapter assembly 200 of Murphy '481, not the IC package 202. In fact, Murphy '418 is silent 1-WA/2543830.1

with respect to methods of manufacturing the IC package 202. Further, Murphy '481 fails to teach or suggest, among other things, "molding a package base including a plurality of side walls and a floor having a plurality of holes formed therethrough ... wherein said molding includes molding an electrically conductive frame into the floor ...," as recited in Claim 27. The Examiner appears to recognize this.

As noted previously, Murphy '481 does not disclose "molding" the guide member 214 or the guide wall member 224 referred to in the Office Action. Moreover, Murphy '481 fails to disclose "molding an electrically conductive frame into the floor, said frame having a plurality of holes formed therein and the holes through the floor register with the holes of said frame," as recited in independent Claim 27. As plainly shown in Figs. 7-9, there is no "electrically conductive frame [molded] into the floor," as recited in independent Claim 27. For example, socket terminals 206 are not molded into guide member 214, as Fig. 7-9 shows the guide member 214 spaced apart from the socket terminals 206. Thus, Murphy '481 fails to teach or suggest each of the limitations of independent Claim 27.

Hembree relates to a test carrier for testing bumped semiconductor components, such as ball grid array packages, not to the packages *per se*. The Examiner alleges that Hembree discloses molding a package base with "conductive frames" (52) molded into the "floor" (46). However, the passage cited by the Examiner fails to mention "conductive frames" 52, but instead indicates that the alignment member (48) and base (46) can be a unitary structure formed using a molding process. Moreover, Hembree identifies element 52 as "contact members", not conductive frames, as alleged by the Examiner. Hembree discloses conductive layers 56, but discloses forming the conductive layers 56 by a metallization process (deposition, photopatterning, and etching) or a 1-WA/2543830.1

plating process. <u>See</u> column 7, lines 24-31. Hembree does not disclose molding the conductive layers 56 into the base 46. In addition, the conductive layers 56 are not a "frame having a plurality of holes formed therein." In summary, Hembree does not make up for the deficiencies of Murphy '481.

Furthermore, there is no proper motivation to combine Murphy '481 and Hembree to achieve the subject matter of Claim 27. The rejection of Claim 27 is improper and should be withdrawn.

The Examiner alleges that, absent some statement of criticality or unexpected results in the specification, any manufacturing process would have been obvious. This is incorrect, both factually and legally. Moreover, it fails to recognize that neither Murphy '481 nor Hembree teach or suggest that semiconductor die package produced by the method of Claim 27.

Claims 28 and 29 incorporate each of the limitations of independent claim 27. Murphy '554 fails to disclose "molding a package base including a plurality of side walls and a floor having a plurality of holes formed therethrough ... wherein said molding includes molding an electrically conductive frame into the floor." Accordingly, neither Murphy '481, nor Hembree, nor Murphy '554 teach or suggest each of the limitations of independent Claim 27 and, for at least this reason, the rejection of Claims 28 and 29 should be withdrawn.

#### New Claims 31-41

New Claim 31 depends from independent Claim 27.

New Claim 32 is an independent claim directed to a method of manufacturing a semiconductor die carrier. New Claims 33-36 depend from independent Claim 32.

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New Claim 37 is an independent claim directed to a method of manufacturing a

semiconductor die carrier. New Claims 38-41 depend from independent Claim 37.

**Conclusion** 

Applicants respectfully request reconsideration and the timely allowance of the

pending claims. Should the Examiner feel that there are any issues outstanding after

consideration of this response, the Examiner is invited to contact Applicants' undersigned

representative at 202.739.5418 to expedite prosecution.

**EXCEPT** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is

hereby authorized by this paper to charge any additional fees during the entire pendency

of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be

required, including any required extension of time fees, or credit any overpayment to

Deposit Account 50-0310. This paragraph is intended to be a **CONSTRUCTIVE** 

**PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. §1.1 36(a)(3).

Respectfully submitted,

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